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Defense Language and National Security Education Office

Measuring and Reporting Leadership and Core Competency Domains

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4 September 2015

Executive Summary

This interim report summarizes the results of an independent assessment of Department of Defense (DoD) personnel systems and databases, focused on the identification and differentiation of what personnel data exist, where, and at what organizational level, as well as what is done with those data. This research focused on what personnel data are reported, via what mechanisms, both at the military Service-level and enterprise-wide, across DoD. Three specific personnel competencies—Language, Regional Expertise, and Culture (LREC) capabilities—framed and bounded this research effort: we focused on the extent to which existing personnel data reflect training, education, biographic/demographic, or professional experiences relevant to those competencies. The Institute for Defense Analyses (IDA) conducted this assessment at the request of the Under Secretary of Defense for Personnel and Readiness (USD(P&R)), Deputy Assistant Secretary of Defense for Readiness, Defense Language and National Security Education Office.

IDA derived these competencies from existing DoD guidance, specifically the Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3126.01A, “Language, Regional Expertise, and Culture (LREC) Capability Identification, Planning, and Sourcing.” This issuance provides “policy and procedural guidance for the identification, planning, and sourcing of Language, Regional Expertise, and Culture (LREC) capabilities,” which it identifies as “enduring warfighter competencies critical to global mission readiness and integral to joint operations.” This CJCSI identifies and describes three LREC competencies: core culture, regional/technical, and leadership/influence.

Examining the numerous military personnel information management systems across DoD, IDA found evidence that the personnel data captured by the Services are much more extensive and robust than the data made available to the Defense Manpower Data Center (DMDC). DMDC data, when associated with a Service person’s pay, are authoritative and comprehensive. Beyond that, the extent to which data at the enterprise level are authoritative and comprehensive is questionable. Evidence suggests that many data files are incomplete and unworkable.

The incompleteness of these data files hinders the ability of DoD to have an enterprise-wide view of Total Force Regional Expertise, and Culture (REC) competencies. In this document, IDA has made suggestions regarding additional data that could augment the existing data feeds.

Currently, DoD has no enterprise-wide REC readiness index. Using the current DMDC data elements that have been identified as suitable for competency mapping, IDA proposes to develop a REC Readiness Index (REC-RI) proof-of-concept application, hosted by the Person-Event Data Environment that profiles competency domain proficiency levels for the Total Force.

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1. Introduction

A. Purpose

This interim report summarizes the results of the first two phases of a three-phased independent assessment of Department of Defense (DoD) personnel systems and databases, focused on the identification and differentiation of what personnel data exist, where, and at what organizational level, as well as what is done with those data. Phase 1 focused on what personnel data are reported, via what mechanisms, both at the military Service-level and enterprise-wide across DoD. Phase 2 narrowed the scope of the effort by focusing on three specific competencies and the extent to which existing personnel data reflect training, education, biographic/demographic, or professional experiences relevant to those competencies. These two phases, performed concurrently, built the foundation for the forthcoming Phase 3. In Phase 3, the Institute for Defense Analyses (IDA) will build on Phases 1 and 2 to develop a methodology to inventory and measure these specific regional and cultural competency domains, drawing on existing personnel data. IDA conducted this assessment at the request of the Under Secretary of Defense for Personnel and Readiness (USD(P&R)), Deputy Assistant Secretary of Defense for Readiness, Defense Language and National Security Education Office.

B. Approach

In conducting this research, IDA employed a blended-research approach, using both qualitative and quantitative methods. This approach enabled IDA to examine military personnel information management systems across DoD, both from the perspective of the human resource specialists operating in the domain and from quantitative inputs on data completeness statistics, data quality, and data standardization.

IDA also conducted a limited number of interviews with personnel with significant experience in the global geographic regions to identify mission-critical Regional Expertise, and Culture (REC) competencies. Those interviews, in addition to interviews IDA conducted as part of previous research efforts, provided valuable insights that inform our recommendations for the third phase of this project.

This report consists of three main sections, organized as follows: (1) a review of the relevant issuances and the specific REC competencies; (2) an overview of military personnel information-management systems and challenges, including a summary of Defense Manpower Data Center (DMDC) data holdings, along with a discussion of Service personnel records and the data contained therein; and (3) recommendations for Phase 3.

2. The Strategic Context for the Regional Expertise, and Culture Competencies

Over the past decade, national defense strategic guidance documents have emphasized the role of regional and cultural competence as mission-critical enablers. Whether the emphasis of those documents is on Joint, interagency, or multinational engagements, the relevance of these enablers to the broad spectrum of missions and needs is repeatedly referenced in an array of strategic guidance plans, instructions, and directives. These include the following:

- “Capstone Concept for Joint Operations (CCJO).”
- USD (P&R)’s “Strategic Plan for the Next Generation of Training for the Department of Defense.”
- Chairman of the Joint Chiefs of Staff Instruction (CJCSI), CJCSI 3210.06 “Irregular Warfare.”
- CJCSI 3126.01A, “Language, Regional Expertise, and Culture (LREC) Capability Identification, Planning, and Sourcing.”
- DoD Instruction (DoDI) 5160.70, “Management of DoD Language and Regional Proficiency Capabilities.”
- “Sustaining U.S. Global Leadership: Priorities for 21st Century Defense.”
- “2015 National Military Strategy.”

These documents call for these enabling skills to be developed, maintained, assessed, leveraged, tracked, and reported in support of the execution of globally integrated operations.

A. Regional Expertise, and Culture Competencies

Two issuances, the above-mentioned DoDI 5160.70 and CJCSI 3126.01A, address the relevant competencies or skill levels, identify responsibilities, and establish guidelines and proficiency levels. These documents are particularly relevant for this research effort.

DoDI 5160.70 establishes policies and guidelines for the management of foreign language and regional proficiency capabilities, which are identified as “mission critical”

skills.¹ The focus of this issuance is on foreign language and regional proficiency through the lens of personnel management. The DoDI states that DoD’s policy is that “[a]ll language and regional proficiency education, training, and experience of personnel will be tracked and documented in Service personnel and training systems, and this information will be used to assist in force management processes” (p. 2). In Enclosure 3, DoDI 5160.70 provides “six regional proficiency skill level guidelines,” benchmarking skill levels to an individual’s formal education, language skills, and professional roles. This 2007 issuance is in the process of being updated and reissued.²

CJCSI 3126.01A provides “policy and procedural guidance for the identification, planning, and sourcing of Language, Regional Expertise, and Culture (LREC) capabilities,” which it identifies as “enduring warfighter competencies critical to global mission readiness and integral to joint operations.”³ The focus of this issuance is on LREC capabilities through the lens of force management, supporting Joint military operations, both in terms of planning and execution.⁴ To assist in this operationalization of LREC capabilities, this CJCSI identifies and describes three LREC competencies: *core culture*, *regional/technical*, and *leadership/influence* competencies. Table 1 depicts the “Regional Expertise and Culture Competency Factors,” grouped by competency, as represented in the CJCSI 3126.01A.

Table 1. Regional Expertise and Culture Competency Factors

Core Culture	Regional	Leader/Influence Functions
<ul style="list-style-type: none"> • Understanding Culture • Applying Organizational Awareness • Cultural Perspective Taking • Cultural Adaptability 	<ul style="list-style-type: none"> • Applying Regional Information • Operating in a Regional Environment 	<ul style="list-style-type: none"> • Building Strategic Networks • Strategic Agility • Systems Thinking • Cross Cultural Influence • Organizational Cultural Competence • Utilizing Interpreters

Source: CJCSI 3126.01A, “Language, Regional Expertise, and Culture (LREC) Capability Identification, Planning, and Sourcing,” 31 January 2013.

¹ DoD Instruction (DoDI) 5160.70, “Management of DoD Language and Regional Proficiency Capabilities,” 12 June 2007, 1.

² Ibid., Enclosure 3, 18.

³ Chairman of the Joint Chiefs of Staff Instruction, CJCSI 3126.01A, “Language, Regional Expertise, and Culture (LREC) Capability Identification, Planning, and Sourcing,” 31 January 2013, 1; Enclosure A, A-1.

⁴ Ibid., 1.

CJCSI 3126.01A defines each of the above competency factors, providing examples for each bullet. This issuance emphasizes examples that resonate with organizations and individuals responsible for Joint operation planning and execution. Table 2 summarizes the definitions and examples from Enclosures F, G, and H of the CJCSI 3126.01A.

Table 2. Regional Expertise and Culture Competency Definitions, Summarized

Core Culture	Regional	Leader/Influence Functions
Awareness of cultural differences and how those differences influence individuals' behavior	Knowledgeable about the operating environment's political, military, economic, social (including gender, race, ethnicity), information, infrastructure, religious, and historical features	Capable of establishing and maintaining alliances and relationships across cultural and organizational lines
Awareness of cultural differences at the organizational level and how those differences influence how organizations carry out their missions	Knowledgeable about how those features impact operations in that environment	Capable of thinking and planning both short-term and long-term about goals and challenges in the operating environment
Awareness of how best to leverage that knowledge to mitigate the impact of cultural differences on the mission and conduct of operations	Knowledgeable about how best to leverage such insights to mitigate the impact of regional differences on the mission and conduct of operations	Capable of considering the relationships between different individuals, organizations, and entities in a complex operating environment
		Capable of influencing and negotiating with different individuals, organizations, and entities in a complex operating environment
		Capable of building and maintaining negotiating skills in subordinates and enabling them for success in complex operating environments
		Capable of effective use of interpreters

Source: Summary of CJCSI 3126.01A, "Language, Regional Expertise, and Culture (LREC) Capability Identification, Planning, and Sourcing," 31 January 2013, Enclosures F, G, H.

In describing these competencies, the CJCSI 3126.01A also provides proficiency levels. The CJCSI employs a three-level proficiency construct, akin to the military education levels (MEL) that all the Services currently recognize and employ. These three corresponding proficiency levels identified for each of the three competency domains are Basic, Fully Proficient, and Master. Table 3 summarizes the proficiency levels provided in the CJCSI 3126.01A.

Table 3. Proficiency Level Descriptions, Summarized

Level	Descriptions
Basic	General awareness of concepts; limited adaptability; supervision needed
Fully Proficient	Thorough awareness of concepts; routinely adaptable; no supervision needed
Master	Extensive awareness of concepts; adaptable and resilient in all situations; acknowledged authority

Source: Summary of CJCSI 3126.01A, "Language, Regional Expertise, and Culture (LREC) Capability Identification, Planning, and Sourcing," 31 January 2013, Enclosures F, G, H, F-3, G-3, H-4.

Phase 2 entailed the alignment of these REC competency factors with generalizable capabilities needed for successful execution of missions in complex operating environments. For this phase, we benefited from the insights provided during a limited number of interviews with personnel with significant experience in the global geographic regions. To the greatest extent possible, we also leveraged existing studies that addressed LREC competencies.⁵ Table 4 depicts how the competencies might be considered through the lens of generalizable capabilities needed for mission execution in complex operating environments.

In the Table 4, the first row groups the aspects of the competencies that are fundamental to understanding complex operating environments. The next row focuses on the ability to have an impact on the operating environment. Finally, the last row focuses on the competencies in terms of application and action.

⁵ Some of the key studies included: Louise J. R Rasmussen, Winston Sieck, Beth Crandal, Benjamin Simpkins, Jennifer Smith, "Data Collection And Analysis For A Cross-Cultural Competence Model," Cognitive Solutions Division, Applied Research Associates, Inc., N41756-11-C-3843, March 2013; Michael J. McCloskey, Aniko Grandjean, Kyle J. Behymer, Karol Ross, "Assessing the Development of Cross-Cultural Competence in Soldiers," ARI Technical Report 1277, November 2010; A. Abbe, L. M. V. Gulick, and J. L. Herman, "Cross-Cultural Competence in Army Leaders: A Conceptual and Empirical Foundation," Study Report 2008-01 (Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 2008); M. J. McCloskey, K. J., Behymer, E. L., Papautsky, K. G., Ross, and A. Abbe, "A Developmental Model of Cross-cultural Competence at the Tactical Level," Technical Report 1278 (Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 2010). Many of these and other relevant documents are referenced in the following: Jessica A. Gallus, Melissa C. Gouge, Emily Antolic, Kerry Fosher, Victoria Jaspardo, Stephanie Coleman, Brian Selmeski, Jennifer L. Klafehn, "Cross-Cultural Competence in the Department of Defense: An Annotated Bibliography," U.S. Army Research Institute, Special Report 71, April 2014. Also of note was the recent presentation, Robert R. Greene Sands, Yvonne Pawelek, Pieter DeVisser, Allison Greene-Sands, "Assessing Language, Regional Expertise& Culture (LREC) Performance: Not Like Threading a Camel through the Eye of a Needle," Interagency Language Roundtable (ILR) Plenary Session, 15 May 2015.

Table 4. Regional Expertise and Culture Competencies, grouped

Core Culture	Regional	Leader/Influence
Understanding complex operating environments		
Impact of cultural differences on individuals' behavior	The political, military, economic, social (including race, ethnicity, and gender), information, infrastructure, religious, and historical features of that operating environment	The multi-layered relationships between different individuals, organizations, and entities
Having an impact on the operating environment		
Impact of cultural differences at the organizational level on how organizations carry out their missions	Impact of the regional features (political, military, economic, social (including race, ethnicity, and gender), information, infrastructure, religious, and historical) on operations	Short-term and long-term thinking and planning about goals and challenges
Application and action		
Mitigate the impact of cultural differences on the mission and conduct of operations	Mitigate the impact of regional differences on the mission and conduct of operations	Build alliances across cultural and organizational lines
		Influence and negotiate with different individuals, organizations, and entities
		Effective use of interpreters
		Enable subordinates for success in complex operating environments

Source: Summary of CJCSI 3126.01A, "Language, Regional Expertise, and Culture (LREC) Capability Identification, Planning, and Sourcing," 31 January 2013.

B. Conclusion

These three competencies from the CJCSI 3126.01A, and the corresponding three proficiency levels, form the basis for phases two (complete) and three (forthcoming) of this research effort. In Chapter 3, DoD personnel information management approaches and systems are addressed.

3. Military Personnel Information Management

This chapter examines military personnel information-management systems across DoD, focusing on the numerous systems that exist, the management challenges associated with the many systems, and the processing of personnel data. This chapter also identifies emerging systems and strategies to address the endemic personnel management challenges.

A. Enterprise Military Personnel Information Management

In 1993, the Government Accountability Office (GAO) first reported on DoD's personnel management challenges associated with its numerous "military personnel and pay systems" and the "shortcomings in its ability to properly pay military personnel and to monitor and track them to, from, and within their duty stations."⁶ The GAO, DoD Inspector General, and others have documented many instances in which military personnel management has been affected by outdated or ineffective information-management systems. Underpayments/overpayments and underreporting/overreporting of deployments are among the many issues identified.⁷

In response both to emerging demands, and what the GAO termed "long-standing cultural resistance to departmentwide solutions," across DoD, organizations and agencies have developed a multitude of management systems to support their workforce and personnel business processes.⁸ Many of these legacy systems store personnel data in a format not conducive to interoperability with other systems.

⁶ GAO, "Financial Management: Defense's System for Army Military Payroll Is Unreliable," GAO-93-32 (Washington, D.C.: GAO, September 30, 1993).

⁷ GAO, "DoD Systems Modernization: Management of Integrated Military Human Capital Program Needs Additional Improvements," GAO-05-189, February 2005; Government Accountability Office (GAO), "DOD Systems Modernization: Maintaining Effective Communication Is Needed to Help Ensure the Army's Successful Deployment of the Defense Integrated Military Human Resources System," GAO-08-927R, September 2008; GAO, "DoD Financial Management: Actions Needed to Address Deficiencies in Controls over Army Active Duty Military Payroll," GAO-13-28, (Washington, D.C.: GAO, December 2012); GAO, "DOD Financial Management: The Army Faces Significant Challenges in Achieving Audit Readiness for Its Military Pay," GAO-12-406 (Washington, D.C.: GAO, March 2012); GAO, "Defense Major Automated Information Systems: Cost and Schedule Commitments Need to Be Established Earlier," GAO-15-282, February 2015.

⁸ GAO, "DoD Systems Modernization: Management of Integrated Military Human Capital Program Needs Additional Improvements," GAO-05-189, February 2005.

To address these problems, DoD initiated an effort to establish an enterprise-wide and integrated pay and personnel system. The Defense Integrated Military Human Resources System (DIMHRS), which was to be a Joint, integrated, standardized personnel and pay system for all military components, was canceled after approximately 10 years because the program's goal was deemed unachievable and too costly.⁹ As conceptualized, DIMHRS would have absorbed approximately 80 separate legacy systems.¹⁰

This issue of systems modernization is not specific to military personnel information management; in a 1997 report, the GAO documented 150 accounting systems across DoD.¹¹ That same report cited DoD's "numerous nonintegrated computer systems" as necessitating manual data entry and leading to "keypunch errors."¹²

B. Enterprise Defense Manpower Data

DoDI 1336.05, "Automated Extract of Active Duty Military Personnel Records," describes the Department-wide policy regarding maintenance of a centralized, authoritative database that would provide information for research, analysis, reporting, and evaluation of programs and policies.¹³ Reporting requirements, submission instructions, and data standards are highlighted in the document with detailed data values defined in a corresponding DoD Manual. A similar DoDI, "Reserve Components Common Personnel Data System (RCCPDS)," also includes a two-volume manual with reporting procedures and domain values.¹⁴ These documents, plus instructions regarding the reporting requirements for military pay file extracts, comprise the primary authoritative enterprise policy documents regarding data sources for the consideration of competency domains associated with CJCSI 3126.01A, "Language, Regional Expertise, and Culture (LREC) Capability Identification, Planning, and Sourcing." In the next section, desired data elements within Defense Manpower Data Center (DMDC) databases are highlighted for

⁹ Department of Defense Inspector General, "Acquisition Decision Memorandum for the Defense Integrated Military Human Resources System," Report No. D-20 10-041, 5 February 2010.

¹⁰ Frank Parth, Joy Gumz, "The Biggest Peoplesoft Implementation Ever – Implications for Systems Engineering," Project LLC Auditors, 2004, <http://www.projectauditors.com/Papers/DIMHRS.PDF>; Defense Business Board, "Transforming DoD's Core Business Processes for Revolutionary Change," 22 January 2015, http://dbb.defense.gov/Portals/35/Documents/Meetings/2015/2015-01/CBP%20Task%20Group%20Out-brief%20Slides_FINAL.pdf.

¹¹ General Accounting Office (GAO), Accounting and Information Management Division (AIMD), "Financial Management, Seven DOD Initiatives That Affect the Contract Payment Process," GAO/AIMD-98-40 Technological Initiatives, January 1998, 6.

¹² GAO, AIMD, "Financial Management."

¹³ DoD Instruction (DoDI) 1336.05, "Automated Extract of Active Duty Military Personnel Records" (Washington, DC: USD(P&R), 28 July 2009, incorporating change 2 effective 31 March 2015).

¹⁴ DoD Instruction (DoDI) 7730.54, "Reserve Components Common Personnel Data System (RCCPDS)" (Washington, DC: USD(P&R), 20 May 2011).

competency domain mapping. Desired data elements are flagged if data quality is deemed to be less than 90 percent. To render the data useful, it is recommended that the quality of these flagged data elements be improved.

1. Databases

The military Services extract data to the following primary DMDC databases:

- Active Duty Military Personnel Master
- Active Duty Pay
- Reserve Components Common Personnel Data System (RCCPDS) Master
- Reserve Pay
- Contingency Tracking System (CTS)

These are the databases for which we identify data elements of interest as they relate to competency mapping. Additional DMDC databases consisting of Service and Joint training would be of great interest, but according to DMDC and the leadership of the Person-Event Data Environment (PDE), these are currently not populated and available for use in a way that would add to this research. Data holdings within the PDE have quality metrics that are published within a data catalogue. One quality metric, completeness, is a measure of how complete the data element is across the DoD enterprise in terms of usable data, which is significant when deciding whether to use a data element for research; incomplete data may have questionable value.¹⁵ Elements with a completeness rating of less than 90 percent are not considered as suitable for competency mapping until the quality of the data improves. While DMDC no longer provides data dictionaries, descriptions of each data element and file extraction can be found within the PDE, along with a completeness score, which is described in Chapter 4.

a. Active Duty

The first active duty database considered is the Active Duty Military Personnel Master (Table 5). This database provides the primary enterprise-wide look for all active duty personnel across each of the Services and represents the largest repository of data regarding uniformed Service members captured in this Service-extracted file. The second active duty database considers compensation and is the Active Duty Pay database.(Table 6).

¹⁵ “Person-Event Data Environment - Data Metrics,” Version 1.0, 16 July 2012.

Table 5. Active Duty Military Personnel Master

Data Element Name	Completeness	Domain Description	Element Description
Assigned Unit Location Country Code	99.24%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	This data element represents the Country Code for the normal shore location or homeport of the unit to which a member is assigned. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting, and updating (Defense Enrollment and Eligibility Reporting System) DEERS.
Country Original Citizenship*	61.60%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent the country in which a person was born, if not born in the United States. The data are received daily and monthly from personnel data feeds. The data are used for determining eligibility for commissioning or reenlistment, assignments/positions, duty status reporting in special cases, and discharge/retirement.
Duty DoD Occupation Code	95.83%	The DoD code for a grouping of similar occupations or sets of related duties across the Department.	This is a DMDC-derived data element from Duty Service Occupation Code for a person. The data are created daily and monthly for position reporting and updating DEERS.
Duty Service Occupation Code*	-	The code that represents the Service-specific military skill of a DoD Military Service member's duty position.	The data are received daily and monthly from data feeds. The data are used for position reporting and updating DEERS.
Duty Unit Location Country Code	99.13%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent the country of a DoD Service member's physical duty location. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting and updating DEERS.
Duty Unit Location Major Body of Water Code*	0.34%	The code that represents named areas of water such as oceans, bays, or gulfs.	These data represent the named area of water of a DoD Service member's physical duty location. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting and updating DEERS.
Duty Unit Navy Ashore Afloat Code*	24.38%	The code for representing whether a unit is stationed on land or at sea.	This data element represents the member's duty location status related to land or sea duty. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting.

Data Element Name	Completeness	Domain Description	Element Description
Education Discipline Code*	5.33%	The code that represents a subject of study.	This data element represents the subject of study for the highest degree obtained. The data are received daily and monthly from data feeds for demographic and employment reporting.
Education Level Code*	97.89%	The code that represents a classification of a specific kind or certification pertaining to education	This data element represents the highest post-secondary certificate, degree, or diploma awarded to an individual. The data are received daily and monthly from personnel data feeds. The data are used for demographic and benefits reporting.
Ethnic Affinity Code	97.32%	The code that represents the cultural background with which a member identifies.	This data are received daily and monthly from personnel data feeds. The data are used for demographic reporting, supporting equal opportunity management objectives, and updating DEERS.
Faith Group Code	94.57%	The code that represents a religious denomination or practice with which a person may self-declare affiliation.	Also referred to as Religion Code. The data are received daily and monthly from personnel data feeds. The data are used for demographic reporting.
Home of Record Country Code	94.41%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent the country code that is used for identifying the residence declared by a member at the time of the latest entry to military service. The data are received daily and monthly from data feeds for demographic and employment reporting, and updating DEERS.
Joint Professional Military Education Level Code	2.15%	The code for representing the highest level of joint professional military education completed by an officer in person or by correspondence.	The data are received daily and monthly from data feeds for demographic and employment reporting.
Person Birth Place Country Code	96.27%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent the country where a person was born. The data are received daily and monthly from personnel data feeds. The data are used for demographic reporting.
Person Mailing Address Country Code	99.26%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent where a person was born. The data are received daily and monthly from personnel data feeds. The data are used for demographic reporting.

Data Element Name	Completeness	Domain Description	Element Description
Professional Military Education Level Code*	11.12%	The code for representing the highest level of professional military education completed by an officer in person or by correspondence.	The data are received daily and monthly from data feeds for demographic and employment reporting.
Race Code	95.55%	The code representing the 1997 revision to OMB Directive 15 standard for race only, allowing multiple race designations. Race is a nonscientific division of the population based on assumed primordial biological properties. The data are a social-political construct designed for collecting data on broad population groups in the United States and are not anthropologically or scientifically based. The data may be considered Personally Identifiable Information (PII).	The data are received monthly from data feeds for use in demographic reporting, supporting equal opportunity management objectives, and updating DEERS.
Secondary DoD Occupation Code*	38.53%	The DoD code for a grouping of similar occupations or sets of related duties across the department.	This is a DMDC-derived data element from Secondary Service occupation Code for the Primary DoD Occupation Code for a person. The data are created daily and monthly for position reporting and updating DEERS.
Secondary Service Occupation Code*	-	The code that represents the Service-specific secondary military skill of a DoD Military Service member.	The data are received daily and monthly from data feeds. The data are used for position reporting and updating DEERS.

Source: DMDC Active Duty Military Personnel Master, Person-Event Data Environment

From Table 5 it is apparent that several of the elements that would be important for competency mapping are simply lacking in data quality, such as country of original citizenship, education discipline code, Joint Professional Military Education code, and Professional Military Education code. Table 6 depicts desired data elements from the pay file.

Table 6. Active Duty Pay

Data Element Name	Completeness	Domain Description	Element Description
Assigned Unit Location Country Code	13.91%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	This data element represents the Country Code for the normal shore location or homeport of the unit to which a member is assigned. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting, and updating DEERS.
Combat Zone Tax Exclusion Country Code	1.84%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	The code that represents the country designated a Combat Zone. Used only when CZTE is indicated by MILPAY_IND_CD.
Combat Zone Tax Exclusion Major Body of Water Code	0.33%	(Major Body of Water Code) The code that represents named areas of water such as oceans, bays, or gulfs.	TBD
Foreign Language 1 Identifier Trigraph Code	1.73%	The trigraph code of a reported language capability a person has outside of English.	The data are received monthly from data feeds for language capability reporting.
Foreign Language 1 Proficiency Pay Amount	100.00%	A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Foreign Language 1 Proficiency Pay Effective Date	1.73%	The atomic date a period starts, representing the beginning of temporal data. The date can represent the beginning of a past, present, or future period.	The date on which an action or condition takes effect.
Foreign Language 10 Identifier Trigraph Code	0.00%	The trigraph code of a reported language capability a person has outside of English.	The data are received monthly from data feeds for language capability reporting.

Data Element Name	Completeness	Domain Description	Element Description
Foreign Language 10 Proficiency Pay Amount	100.00%	A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Foreign Language 10 Proficiency Pay Effective Date	0.00%	The atomic date a period starts, representing the beginning of temporal data. The date can represent the beginning of a past, present, or future period.	The date on which an action or condition takes effect.
Foreign Language 2 Identifier Trigraph Code	0.23%	The trigraph code of a reported language capability a person has outside of English.	The data are received monthly from data feeds for language capability reporting.
Foreign Language 2 Proficiency Pay Amount	100.00%	A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Foreign Language 2 Proficiency Pay Effective Date	0.23%	The atomic date a period starts, representing the beginning of temporal data. The date can represent the beginning of a past, present, or future period.	The date on which an action or condition takes effect.
Foreign Language 3 Identifier Trigraph Code	0.01%	The trigraph code of a reported language capability a person has outside of English.	The data are received monthly from data feeds for language capability reporting.
Foreign Language 3 Proficiency Pay Amount	100.00%	A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Foreign Language 3 Proficiency Pay Effective Date	0.01%	The atomic date a period starts, representing the beginning of temporal data. The date can represent the beginning of a past, present, or future period.	The date on which an action or condition takes effect.
Foreign Language 4 Identifier Trigraph Code	0.00%	The trigraph code of a reported language capability a person has outside of English.	The data are received monthly from data feeds for language capability reporting.

Data Element Name	Completeness	Domain Description	Element Description
Foreign Language 4 Proficiency Pay Amount	100.00%	A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Foreign Language 4 Proficiency Pay Effective Date	0.00%	The atomic date a period starts, representing the beginning of temporal data. The date can represent the beginning of a past, present, or future period.	The date on which an action or condition takes effect.
Foreign Language 5 Identifier Trigraph Code	0.00%	The trigraph code of a reported language capability a person has outside of English.	The data are received monthly from data feeds for language capability reporting.
Foreign Language Proficiency Pay Total Amount	100.00%	The trigraph code of a reported language capability a person has outside of English.	The data are received monthly from data feeds for language capability reporting.
Overseas Cost of Living Allowance Amount	100.00%	A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Special Pay 1 Location Country Code	4.68%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	TBD
Special Pay 1 Original Start Date	1.23%	The atomic date a period starts, representing the beginning of temporal data. The date can represent the beginning of a past, present, or future period.	TBD
Special Pay 1 Paid Current Month Amount	100.00%	The atomic date a period closes, representing the end of temporal data. When actual end dates are used, it is not possible to reverse out or reinstate changes to the end date without resubmission of original date.	TBD

Data Element Name	Completeness	Domain Description	Element Description
Special Pay 1 Stop Date	0.03%	The atomic date a period closes, representing the end of temporal data. When actual end dates are used, it is not possible to reverse out or reinstate changes to the end date without resubmission of original date.	TBD

Source: DMDC Active Duty Pay, Person-Event Data Environment.

In this database, we can see that over half the desired data elements do not have the quality desired for competency mapping at this time, yet these data are sometimes captured with greater quality in the personnel database. For example, assigned unit location country code has less than a 14 percent completeness score, yet in the active duty military personnel master file the same data element has over 99 percent completeness. All data related to foreign language identification would be of interest, as would special pay location country codes. In the next section, we consider the Reserve Component personnel and pay databases.

b. Reserve Component

As with the active duty databases, we first consider the Reserve Component personnel database (Table 7), followed by the pay database (Table 8).

Table 7. Reserve Components Common Personnel Data System (RCCPDS)

Data Element Name	Completeness	Domain Description	Element Description
Assigned Unit Identification Code	100.00%	(Unit Identification Code) The code for representing the unique value that identifies a unit within the DoD force structure.	This data element represents the Service unique code that identifies the unit to which a member is assigned. Also referred to as the Personnel Accounting System (PAS) for the Department of the Air Force and the Reporting Unit Code (RUC) for the Marine Corps. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting, and updating DEERS.
Assigned Unit Location Country Code	69.22%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	This data element represents the Country Code for the normal shore location or homeport of the unit to which a member is assigned. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting, and updating DEERS.

Data Element Name	Completeness	Domain Description	Element Description
Civilian Standard Occupation Code	-	(Standard Occupation Code) The Office of Management and Budget (OMB) Standard Occupation codes that represent the current occupation held by a member.	The data are received daily and monthly from personnel data feeds. This data are used for personnel reporting and updating DEERS.
Country Original Citizenship	63.66%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent the country in which a person was born, if not born in the United States. The data are received daily and monthly from personnel data feeds. The data are used for determining eligibility for commissioning or reenlistment, assignments/positions, duty status reporting in special cases, and discharge/retirement.
Duty DoD Occupation Code	61.00%	(DoD Occupation Code) The DoD code for a grouping of similar occupations or sets of related duties across the department.	This is a DMDC derived data element from Duty Service Occupation Code for a person. The data are created daily and monthly for position reporting and updating DEERS.
Duty Unit Identification Code	100.00%	(Unit Identification Code) The code for representing the unique value that identifies a unit within the DoD force structure.	This data element represents the Service-unique code that represents the unit to which a member has physically reported for duty. The data are received daily and monthly from personnel data feeds. The data are used for location and unit reporting.
Education Level Code	96.02%	(Education Level Code) The code that represents a classification of a specific kind of certification pertaining to education.	This data element represents the highest post-secondary certificate, degree, or diploma awarded to an individual. The data are received daily and monthly from personnel data feeds. The data are used for demographic and benefits reporting.
Ethnic Affinity Code	97.05%	(Ethnic Affinity Code) The code that represents the cultural background with which a member identifies.	The data are received daily and monthly from personnel data feeds. The data are used for demographic reporting, supporting equal opportunity management objectives, and updating DEERS.
Faith Group Code	84.80%	(Faith Code) The code that represents a religious denomination or practice with which a person may self-declare affiliation.	Also referred to as Religion Code. The data are received daily and monthly from personnel data feeds. The data are used for demographic reporting.
Joint Professional Military Education Level Code	0.73%	(Joint Professional Military Education Level Code) The code for representing the highest level of joint professional military education completed by an officer in person or by correspondence.	The data are received daily and monthly from data feeds for demographic and employment reporting.

Data Element Name	Completeness	Domain Description	Element Description
Occupation Career Group Code	11.21%	(Occupation Career Group Code) The code for representing the assigned career field for an officer or enlisted member.	Also referred to as Enlisted - Career Management Field and Officer - Basic Branch or Competitive Category. The data are received daily and monthly from personnel data feeds. The data are used for position reporting.
Person Birth Place Country Code	54.84%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent the country where a person was born. The data are received daily and monthly from personnel data feeds. The data are used for demographic reporting.
Primary DoD Occupation Code	96.03%	(DoD Occupation Code) The DoD code for a grouping of similar occupations or sets of related duties across the department.	This is a DMDC derived data element from Primary Service Occupation Code for the Primary DoD Occupation Code for a person. The data are created daily and monthly for position reporting and updating DEERS.
Professional Military Education Level Code	9.15%	(Professional Military Education Level Code) The code for representing the highest level of professional military education completed by an officer in person or by correspondence.	The data are received daily and monthly from data feeds for demographic and employment reporting.
Race Code	95.81%	(Race Code) The code representing the 1997 revision to OMB Directive 15 standard for race only, allowing multiple race designations. Race is a nonscientific division of the population based on assumed primordial biological properties. The data are a social-political construct designed for collecting data on broad population groups in the United States and are not anthropologically or scientifically based. The data may be considered Personally Identifiable Information (PII).	The data are received monthly from data feeds for use in demographic reporting, supporting equal opportunity management objectives, and updating DEERS.
Secondary DoD Occupation Code	31.72%	(DoD Occupation Code) The DoD code for a grouping of similar occupations or sets of related duties across the Department.	This is a DMDC derived data element from Secondary Service Occupation Code for the Primary DoD Occupation Code for a person. The data are created daily and monthly for position reporting and updating DEERS.

Source: DMDC Reserve Components Common Personnel Data System, Person-Event Data Environment.

Similar to the active duty databases, there are quality issues related to country of original citizenship, joint professional military education, and professional military education. In addition, data elements such as DoD and civilian occupation codes and person birth place country code are also lacking quality. Next we consider the pay file of the Reserve Components (Table 8).

Table 8. Reserve Component Pay

Data Element Name	Completeness	Domain Description	Element Description
Combat Zone Tax Exclusion Country Code	2.61%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	The code that represents the country designated a Combat Zone. Used only when CZTE is indicated by MILPAY_IND_CD.
Foreign Language 1 Proficiency Pay Amount	100.00%	(Amount) A quantity of money. Amounts are assumed to be US dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Hazardous Duty Incentive Pay 2 Amount	100.00%	(Amount) A quantity of money. Amounts are assumed to be US dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Hazardous Duty Incentive Pay 2 Type Code	0.01%	(Hazardous Duty Incentive Pay Type Code)TBD	TBD
Hazardous Duty Incentive Pay 3 Amount	100.00%	(Amount) A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Hazardous Duty Incentive Pay 3 Type Code	0.00%	(Hazardous Duty Incentive Pay Type Code)TBD	TBD
Hazardous Duty Incentive Pay Amount	100.00%	(Amount) A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Hazardous Duty Incentive Pay Type Code	1.01%	(Hazardous Duty Incentive Pay Type Code)TBD	TBD

Data Element Name	Completeness	Domain Description	Element Description
Hostile Fire Imminent Danger Pay Amount	100.00%	(Amount) A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	Also referred to as Hostile Fire/Imminent Danger Pay Amount
Officer Hardship Duty Pay Amount	100.00%	(Amount) A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Residence Location Country Code	97.57%	(FIPS Country Code) The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	TBD
Special Duty Assignment Special Pay Amount	100.00%	(Amount) A quantity of money. Amounts are assumed to be U.S. dollars and cents, unless stated otherwise, and stored with 2 decimals of precision for cents in databases or stored with 2 digits for cents without a period in flat files.	TBD
Unit Identification Code	-	(Unit Identification Code) The code for representing the unique value that identifies a unit within the DoD force structure.	The data are received monthly from data feeds for position reporting and updating DEERS.

Source: DMDC Reserve Component Pay, Person-Event Data Environment.

Within the pay file we see that combat zone tax exclusion country code and hazardous duty pay types are lacking in quality. In 2006, GAO described steps that DoD and the military Services needed to take to improve the data on Reserve Component mobilization.¹⁶ Discussions IDA conducted with the DMDC leadership indicated that data quality had steadily improved since 2009, with a quality goal of 100 percent. As we will see with the Contingency Tracking System below (Table 9), improvement has taken place, although there are some data elements still lacking in completeness and the Army has been cited for

¹⁶ Derek Stewart, United States Government Accountability Office (GAO) Report to Congressional Committees, "Military Personnel: DOD and the Services Need to Take Additional Steps to Improve Mobilization Data for the Reserve Components" (Washington, DC: GAO-06-1068, September 2006).

insufficient data management procedures and data quality regarding the soldier availability of Reserve Component members.¹⁷

Table 9. Contingency Tracking System (CTS)

Data Element Name	Completeness	Domain Description	Element Description
Assigned Unit Location Country Code	95.59%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	This data element represents the Country Code for the normal shore location or homeport of the unit to which a member is assigned. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting, and updating DEERS.
Duty Unit Location Country Code	0.00%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent the country of a DoD Service member's physical duty location. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting and updating DEERS.
Duty Unit Major Command Code	41.90%	The code for representing the highest level in the organizational structure to which a military unit belongs.	These data represent the highest level organization of a DoD Service member's physical duty location. The data are received daily and monthly from personnel data feeds. The data are used for military location reporting and updating DEERS.
Education Level Code	98.23%	The code that represents a classification of a specific kind of certification pertaining to education.	This data element represents the highest post-secondary certificate, degree, or diploma awarded to an individual. The data are received daily and monthly from personnel data feeds. The data are used for demographic and benefits reporting.

¹⁷ Brenda S. Farrell, United States Government Accountability Office (GAO) Report to Congressional Committees, "Army Reserve Components: Improvements Needed to Data Quality and Management Procedures to Better Report Soldier Availability" (Washington, DC: GAO-15-626, July 2015).

Data Element Name	Completeness	Domain Description	Element Description
Ethnic Affinity Code	98.15%	The code that represents the cultural background with which a member identifies.	The data are received daily and monthly from personnel data feeds. The data are used for demographic reporting, supporting equal opportunity management objectives, and updating DEERS.
Event Name Identifier	100.00%	The code that represents the generic text title of an activation, mobilization, or deployment.	This is a generated data element used by DMDC to indicate an Overseas Contingency Operation Deployment Event.
Faith Group Code	92.84%	The code that represents a religious denomination or practice with which a person may self-declare affiliation.	Also referred to as Religion Code. The data are received daily and monthly from personnel data feeds. The data are used for demographic reporting.
Home of Record Country Code	0.00%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	These data represent the country code that is used for identifying the residence declared by a member at the time of the latest entry to military service. The data are received daily and monthly from data feeds for demographic and employment reporting, and updating DEERS.
Person Mailing Address Country Code	96.61%	The Federal Information Processing Standard (FIPS 10-4) 2 byte alpha code that represents a U.S. Government recognized geopolitical entity commonly referred to as a country.	This data element represents the country of a person's mailing location. The data are received daily and monthly from data feeds for military location reporting, and updating DEERS.
Primary DoD Occupation Code	98.20%	The DoD code for a grouping of similar occupations or sets of related duties across the department.	This is a DMDC derived data element from Primary Service Occupation Code for the Primary DoD Occupation Code for a person. The data are created daily and monthly for position reporting and updating DEERS.

Data Element Name	Completeness	Domain Description	Element Description
Race Code	94.92%	The code representing the 1997 revision to OMB Directive 15 standard for race only, allowing multiple race designations. Race is a nonscientific division of the population based on assumed primordial biological properties. The data are a social-political construct designed for collecting data on broad population groups in the United States and are not anthropologically or scientifically based. The data may be considered Personally Identifiable Information (PII).	The data are received monthly from data feeds for use in demographic reporting, supporting equal opportunity management objectives, and updating DEERS.
Secondary DoD Occupation Code	36.24%	The DoD code for a grouping of similar occupations or sets of related duties across the department.	This is a DMDC derived data element from Secondary Service Occupation Code for the Primary DoD Occupation Code for a person. The data are created daily and monthly for position reporting and updating DEERS.
US Citizenship Status Code	98.48%	The code that represents the condition or state of a person's U.S. citizenship or application for U.S. citizenship.	This data indicates whether the person is a U.S. citizen. It is submitted on personnel batch transactions only and used to generate a citizenship record of individuals from the United States or an unknown country. These data will be used as supporting information when a service submission indicates that a person is not a US citizen, which is important information since for the foreseeable future we will not be sent country of citizenship from batch sources.

Source: DMDC Contingency Tracking System (CTS), Person-Event Data Environment.

2. Conclusions

Since these data are extracted by each Service to DMDC, data quality issues for any Service only make it more difficult for an enterprise, department-wide look. DoDI 1336.05

specifically states that military Services failing to comply with the coding instructions shall be responsible for data interchange conversion costs, but there are examples where this is simply not being enforced.¹⁸ For example, DoD Manual 1336.05, “Defense Manpower Data Center Domain Values for Military Personnel Data Extracts,” lists educational discipline codes, yet as highlighted in Table 5, these desired data elements only have 5.33 percent completeness.¹⁹ In other cases, it may be desirable to request changes in domain values such education level code, since the value only lists the highest level of degree attained and does not list each degree obtained and educational discipline. Triangulating data from the personnel, pay, and contingency tracking system databases permits one to discern rich details regarding Service members that would otherwise be not seen in a single database, and improvements to data quality would permit more thorough competency mapping.

C. Service Military Personnel Information Management

A recent article from Federal News Radio addressed the challenges the Services face with their personnel information-management systems: “The military services aggregate and store” data about their employees “in a variety of purpose-built databases that were never designed to communicate with one another. The Army estimates it has 53 such functional databases; the Navy counts 79.”²⁰ That same article quoted Roy Wallace, the Army’s Assistant Deputy Chief of Staff for Personnel, who said that many of these systems still use “undocumented COBOL [Common Business-Oriented Language] code.”

To address these personnel management challenges, the Services have developed or are developing integrated pay and personnel systems. At present, only the Marine Corps has an integrated pay and personnel system that is fully fielded and functional, the Marine Corps Total Force System (MCTFS).

The Integrated Personnel and Pay System-Army (IPPS-A) is the Army’s new web-based human resources system. IPPS-A will feature integrated personnel and pay capabilities, as well as a comprehensive personnel record for its military personnel, the new Soldier Record Brief. IPPS-A is currently in development and not yet fully deployed.²¹

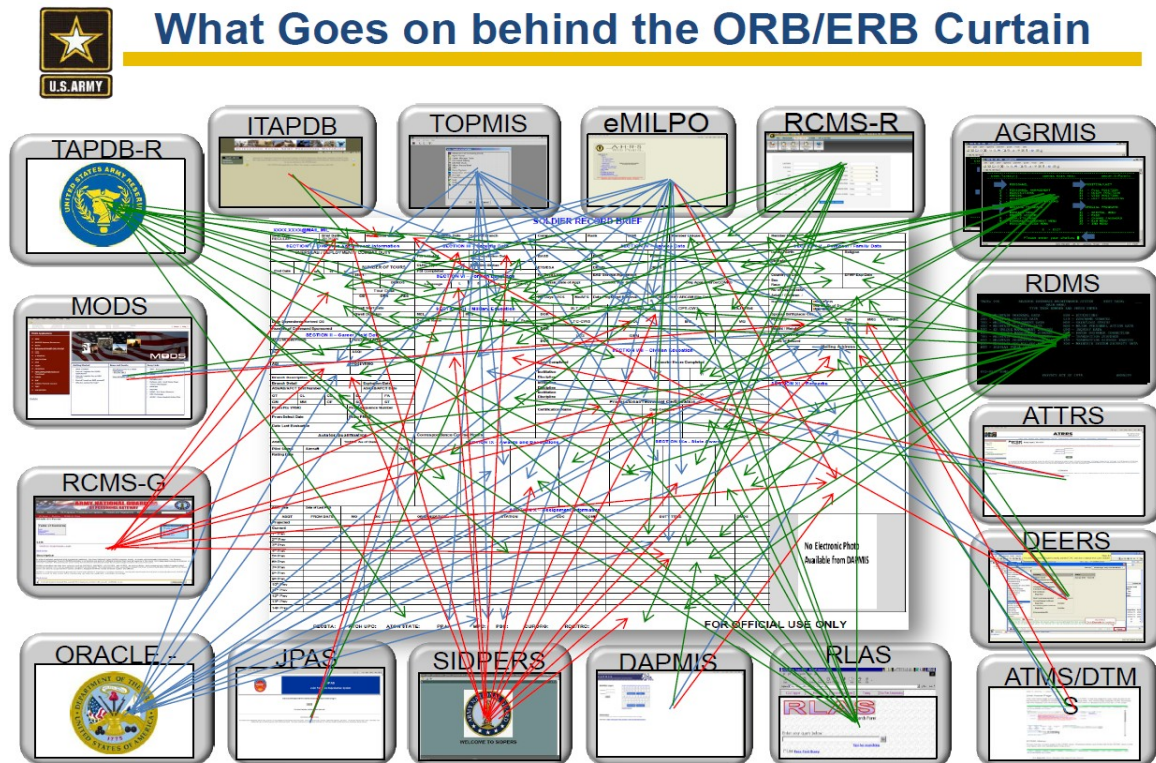
¹⁸ DoD Instruction (DoDI) 1336.05, “Automated Extract of Active Duty Military Personnel Records” (Washington, DC: USD(P&R), 28 July 2009, incorporating change 2 effective 31 March 2015).

¹⁹ DoD Manual (DoDM) 1336.05, “Defense Manpower Data Center Domain Values for Military Personnel Data Extract” (Washington, DC: USD(P&R), 28 July 2009, Incorporating Change 1, February 26, 2013).

²⁰ Jared Serbu, “Pentagon’s New HR Chief Says Personnel System Is in Urgent Need of Reform,” Federal News Radio, 10 June 2015, <http://federalnewsradio.com/defense/2015/06/pentagons-new-hr-chief-says-personnel-system-is-in-urgent-need-of-reform/>.

²¹ Sean Lyngaas, “Army Personnel Database Picks up where Pentagon Left Off,” FCW, 02 May 2014, <http://fcw.com/articles/2014/05/02/ippsa-rollout.aspx>.

Figure 1 depicts the complexity of the Army’s “Human Resource Information Technology [HRIT] environment.” It is this complexity—with numerous systems feeding into numerous systems, ultimately populating Service members’ individual record (the Officer/Enlisted Record Brief, ORB/ERB)—that having an integrated pay and personnel system, such as IPPS-A, will address.



Source: Jeanne Brooks, Director, Technology and Business Architecture Integration, “Army G1, Integrated Personnel and Pay System-Army (IPPS-A): Overview for the National Commission on the Future of the Army,” 16 July 2015.

Figure 1. “Perspective on the Complexity of Today’s HRIT Environment”

The Integrated Pay and Personnel System-Navy (IPPS-N) is the Navy’s “strategy to support the modernization of personnel accounting systems and procedures.”²² This modernization will entail incremental migration from legacy systems; the ultimate goal is that the Navy Standard Integrated Personnel System (NSIPS) expand functionality to become the Navy’s integrated pay and personnel system.

²² Statement of Vice Admiral Robin R. Braun, U.S. Navy Chief of Navy Reserve Before the Senate Subcommittee on Defense Committee on Appropriations, 17 April 2013, <http://www.appropriations.senate.gov/sites/default/files/hearings/Guard%20Reserve%20Braun%20Written%20Statement.pdf>.

The Air Force Integrated Personnel and Pay System (AF-IPPS) will be a web-enabled system that will integrate many existing personnel and pay processes. AF-IPPS is currently in development.

MCTFS is the integrated personnel and pay system used by the Marine Corps. MCTFS has been identified as “the premier pay and personnel system among our Armed Forces and has historically been a top priority among automated information system programs, and is the only system of its type within the Department of Defense (DoD).”²³

D. Service Personnel Records

1. Background

As described above, the military Services have dozens of databases, applications, and information systems developed for the purpose of personnel management. The data populating those myriad systems are wide ranging, including information about assignments, occupation, security, health, education (military and civilian, including academic discipline), awards and decorations, as well as personal and family information.

Each Service member has a record that summarizes much of these data elements. The Army has the Officer/Enlisted Record Brief (ORB/ERB). The Navy has the Officer Data Card (ODC). Air Force personnel use the Career Data Brief (CDB). The Marine Corps calls its record the Master Brief Sheet (MBS). From the Service persons’ perspectives, these records provide a snapshot of their careers. From the Services’ human resource management perspective, these records are a standardized representation of the individual’s Official Military Personnel File (OMPF). There are many other records at every echelon, documenting other specifics regarding professional experiences, training, education, etc.

The Army’s ORB/ERB will soon be replaced by the Soldier Record Brief (SRB, depicted in Figure 2).

²³ Exhibit 300: Capital Asset Summary, Marine Corps Total Force System, UII 007-000006525, 30 April 2014, <https://it-2015.itdashboard.gov/investment/exhibit300/pdf/007-000006525>.

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SECTION II - Career Field Data										AOC/MOS/WP/MOS					Functional Area/SMOS					SQI					ASQI					ASI					POSU/PRMO					Branch Description					Branch Detail					Expiration Date					ASVAB/AFCT Test Number					ASVAB/AFCT Date					GT					CL					CO					EL					FA					GM					MM					OF					SC					ST					Correspondence Course Hours					SECTION IX - Awards and Decorations					SECTION IXa State Awards					SECTION XI - Remarks									
From Pts YRMO										From Sequence Number					From PMSOS					Date Last Evaluation					Aviator Qualifications					ASED					TOFISC					AS OF Date					Pilot Status					Aircraft					Qual					Aircraft					Qual					Rating Date					AEA / Date					Date of Last PCS					SECTION X - Assignment Information					ASGT					From Date					MO					UIC					ORGANIZATION					STATION					LOC/COMD					DUTY TITLE					DMOS					Electronic Photo from DAPMIS				
Current										1st Prev					2nd Prev					3rd Prev					4th Prev					5th Prev					6th Prev					7th Prev					8th Prev					9th Prev					10th Prev					11th Prev					12th Prev					13th Prev					14th Prev					RECSTA					ATCHUPC					ATCHSTATE					PPA					MPC					PSC					CURORG					RCC/TRC																								

The final SRB will include minor changes due to the system development and testing processes for IPPS-A. This version is only a template mock-up.

Version 1.1 as of 20 AUG 2012

Source: "Soldier Record Brief Template Mock-up," Version 1.1, Department of the Army Photo Management Information System (DAPMIS), 20 August 2012, <http://usarmy.vo.llnwd.net/e2/c/downloads/284818.pdf>.

Figure 2. Army Soldier Record Brief Template Mock-up

1 SSN		2 NAME(LAST;FIRST,MIDDLE)				3 SEX		4 DESIG		5 GRADE		6 YRG		7 PRECEDENCE NO.		8 BIRTHDATE		9 INFO					
Auto-fill				Auto-fill				Auto Fill		Auto Fill		Auto Fill		Auto-fill		Auto-fill							
14 PRD		15 ELCD		16 PBD		17 SD		18 ER		19 ACSD		20 ADDS		21 CURR CMN		22 PSD		23 MSR-1		24 SOURCE CODE		25 DEPENDENTS	
36 FLAG		CAPT		COR		LCDR		LT		LTJG		ENS		W-2		37 FROM		38 SPOT		39 SPOT DOR		40 PRM GRD	
* To submit your transcripts and have the education blocks updated, see Note 4.																							
Planned Rotation Date Pay Entry Base Date Active Duty Start Date PROMOTION HISTORY																							
51 DESIGNATOR HISTORY DATE DESIG DATE DESIG																							
54 COLLEGE 55 CMPL 56 DUB 57-8 MAJOR 59 SPECIALTY 61 ED 62 LANG 63 PPM 64 R PPM 65 W PPM 66 LO 67 SUBSP1 68 SUBSP2 69 SUBSP3 70 XXXX																							
* To update your subspecs or submit an experience subspec request, see Note 3.																							
73 PRIMARY DUTY 75 ACC 342																							
74 REPORTED 77 PRESENT DUTY STATUS 78 TA 79 UTIL 80 HOMEPORT 81 STA 82 (A)PRESENT BILLET 83 NOBC 84 DATE 85 (B) BILLET 86 NOBC 87 MOS 88 (C) BILLET 89 NOBC 90 MOS																							
*Auto-filled with current billet information																							
CHRONOLOGICAL HISTORY/NAVY OFFICER CLASSIFICATIONS AND NUMBER OF MONTHS EXPERIENCE																							
91 From To PAST DUTY STATUS TA UTIL HOMEPORT DPL STA TITLE NOBC MOS TITLE NOBC MOS TITLE NOBC MOS																							
* NOBCs track what job you ACTUALLY filled at your command (S-1, S-2, S-3, SUPPO, Fuel Logistics Planning, etc.). For a full list of approved NOBCs and the process for adding them to Block 91, see Note 5.																							
92 SECURITY 93 94 PG INFO CHOICE 1-23-DATE/STATUS 95 RC 96 ET 97 OCC 98 UIC 99 SSC 100 101 BLC 102 GLI 103 CMD5 104 DTRMM 105 106 DATE OF ODC 107 COGAC 108 RC 109 BUPERS 110 REPORT NUMBER																							

* PG School preferences, see Note 6.

* To calculate your APC, see Note 2.

* For a complete list of approved AQD's, please visit the [NOCS Manual, Volume I, Part D](#).

Figure 3. Navy Officer Data Card

The Air Force's Virtual Military Personnel Flight (vMPF) suite of applications is the means by which airmen now view, verify, and manage their personal data. Figure 4 depicts fields from the Air Force Officer/Enlisted Career Data Brief.²⁴

30

DUTY PHONE:			
OAA: 1601 SM: ESNT PSN: COMMAAD: AUCFCOFTHESCOFCE&F51DPCTY 7S:005 R.NCT C.I.T.A.I A. <PRESS RUINO Q<IADPNJPADGY Aes: nIES P.M.:S UNIT: o=FCC O: =00 S00:1A1JG:OU PG\I\,D: S/Cr: B: S: X: MAb CVC OCT: 6=) ASGL: S.YILO: P&L =DS: O S/TI-NIC: NG: B: HJSAJDC: NOT HJSAJDD: ATNO AAOS v.J-111: AISTAT: AM: UO C-CA:1 AS00: 0 STATJ3. N: mte NOFAOJ SCSOAC"nCN CSTATJ3. JCFM: NT:			
RESTRICTIONS DUTY STATUS: NO PRESENT FOR DUTY AAN: MO:			
1ST ASSIGN: 11P N.e.eXP: .ouTY Aro\,NOO: , OOAAT: 110ATS: 11			
SERVICEDATES 0,0,a 111t: 013 IOT: 1SJL: 1955 TA:CSO: 19WJ/1 1S 7 O: 11,es. 00,00. 1SJL: 013 PAYOT: 11 OCT 1955 :SHO: UMS, O TA:MSO: ZS 1957 COSO: 16AdC 00a. JOJU: 011 I.C.SO: 19WJ/ 1957 AeG0m OT: 1S OCT 1 STRD: 16 SEP 1957 SAO: 1957 T"AO: FUJO: 19NOV 1S 7 19NOV 1957 C.OO AOSCM AOa: C AOSCM Z*tS=: 01 i\liOt : GUICE 31MAY: 001 F UJU: 01 FS" M: SNTCHA" GS O: STATION) 01JLZ: 100 \NOS: : TNG \,HT\,NT)			
OPR <ATA UJIt.: 013 IOIA: 1: 007 1S: LAY: 000 1S: 0 = 1			
PME INFORMATION COS: A'RWAOUC: G0 OS- A'X: NN.A: a- STA= <=OCU: G0 JONT (SS= a; :00)		PROJECTED TRAINING P:STHCO NC: Nf: S: IOSNCS NC: Nf: S: IOSNCS	
SECURITY K<RWATION FDE-SQUADRON OFFICER SCHOOL (BEFORE 2005)		LANGUAGE INFORMATION L.AIG-SSST: cmzeNSHP. SY S' N TSO STAT: S L.A' *ZNO: ASoFA0=: LUTH0:I S CJAseoa; e= ocrJMC USA= OTSI:	
AFSC INFORMATION PAac: 911NI : 16Gt 16Gt STK: oo: e l) nM 1Si3		SPECIAL EXPERIENCE IOS OVERSEAS HISTORY 1100	
ACADEMIC C* UE AWAOr.M.SI: O- =GA00:		INFORMATION MJCCFCOW..TY NoIncrw.Cot): ITSYSS	
DECORATIONS CX:OUFOit AVTH = ctoDATA A=FF<CNN.OT A=FHC ASASCN L:G<NO: A0:"JT 11JIt:"010 11JU.: 010 ACKSVSM0NT 07MAY: 011 13NOV: 01Z A': C FS.SNTCHA.TG0: O: STATION) W:JTO'IOUS <VICE :J. 02WJ/1 ISS OIS 1Y: 0 ACKSVet.ISNT AR PLSOAL :OJt.L"00 04AY: 007 A': C ACKSVSM0NT JOU'J. C: gTUi elT Ilro'J. 1SJU. 19ti. 31 AVGIns			
PERMANENT CHANGE OF STATION (PCS) OAc DUTY TIT: e .GZt.FOit &t.O eM V FO: S: 0005. (FO.N: I) 0000 0000 a.CO Je: TMOI Stit0 IMG COINM OEt. C<< OICaWG eco 11A1JG: 011 1SJU.: 010 01JU": 011			
JOINT SERVICE INFORMATION InJBOitON: FCATH: n-TOOU STAOT III III III A.STAT			
RATED INFORMATION AS: OAATrNa: C/NA.OCD Ft. OT ocr.leAT: 7,~ RTRTD: !NOS G-A: \$: ZIG 11G&J 001TA CCWJ 1 C: <K C012F 10 JUL 2013 11408 1 26 JUN 2013 / 1154 8 08 OCT 2009 1152 5 Z* JW: 0051: -1S \$ 11MAY 11Z1IU 23 SEP 1993 1583 1 ASSIGNED CONTINUED ASSIGNED TERMINATED 1 AVRY 16 SEP 1987 ROTM:			

Source: "Air Force Officer Career Data Brief, Virtual Military Personnel Flight (vMPF)," <https://tww3.afpc.randolph.af.mil/NMPPFNeuModules/DVB/DisplayDVB.aspx>.

Figure 4. Air Force Officer Career Data Brief, Showing Fields

The Marine Corps calls its individual personnel record the Master Brief Sheet. Figure 5 depicts a template of the record.

MASTER BRIEF SHEET

PAGE 1 OF 1
CREATED: 15 Apr 2010

***** ADMINISTRATIVE INFORMATION (ORIGINATES FROM MCTFS - CONTACT YOUR ADMIN SECTION FOR CORRECTIONS) *****																											
NAME MARINE, JOHN S.		SSN 123456789	GRADE O4	RANK MAJ	LCN 12345678	DOR 20000501	TIG 3yr. 11mo.	CURRENT DUTY ASSIGNMENT US Central Command			BILLET DESCRIPTION J-3 Future Ops Officer			DCTB 20100302													
KEY DATE SUMMARY		AWARDS			MILITARY OCCUPATIONAL SPECIALTIES					TRAINING SUMMARY			LANGUAGES														
DEAF TIS PEBD AFADBD OSCD ACC COMM DOR COMM DOR LDO DSG PILOT DCADB EAS		BS MM NC NA			PMOS AMOS1 AMOS2 AMOS3			0302 0602 Infantry Officer Communications Officer			AMOS4 ACQ JOINT BMOS 9910 Unrestricted Officer			RIFLE PISTOL PFT CFT MCMAP	E/40 S/340 A/276 A/285 GREY	20040915 20091112 20100330 20091218 20080423	1994 1990	French Spanish									
EDUCATION SUMMARY																											
CIVILIAN																											
MILITARY																											
PME																											
1990 BA, Biology 1980 Associates Deg 1982 HS																											
1993 Winter Mountain Leader 1993 Summer Mountain Leader 1987 Airborne 1990 Assault Climbers 1990 Infantry Officer (TBS) 1989 Basic School																											
2002 Command & Staff Non-Res 1997 AWS Ph II 1995 AWS Ph I 1994 Warfighting Skills Prog																											
***** PERFORMANCE EVALUATION SUMMARY *****																											
ADMINISTRATIVE SUMMARY					REPORTING SENIOR MARKINGS										REVIEWING OFFICER MARKINGS												
Grade	Occ	From	Months	Billet Description	Reporting Senior	Per	Pro	Co	En	Is	Lea	Dev	Set	Ena	Co	PME	Dec	Jud	Eval	Reviewing Officer	RO marks - same grade at processing						
B MOS	Type	To	Com	Adv	Command	Promote	Reports	RPT Avg	R3 Avg	Rs High	RPT at High	RV at Proc	Cum RV	Observer	Concur	RO marks - same grade cumulative											
Capt	GC	20050801	9		Company Commander	Yes	14 of 17	2.53	2.25	2.82	1	94.60	96.00	Col Spredlode	0/1	0/2	1/3	3/4	2/5	1/6	0/7	0/8					
0302	N	20060501	X		1st Battalion 2d Marines	Yes	8 of 8	2.88	2.93	3.50	1	89.76	89.76	Col Spredlode	0/1	0/2	1/3	3/4	2/5	1/6	0/7	0/8					
Maj	CH	20060802	5		Operations Officer	Yes	11 of 16	4.46	5.95	6.38	2	83.70	81.89	Col Fairmark	0/1	0/2	1/3	3/4	2/5	1/6	0/7	0/8					
0302	C	20070119			1st Battalion 2d Marines	Yes	1 of 1	2.30	2.30	2.30	1	N/A	N/A	Col Fairmark	0/1	0/2	1/3	3/4	2/5	1/6	0/7	0/8					
Maj	TR	20070120	3		BN Executive Officer	Yes	5 of 8	5.14	5.33	5.86	1	83.87	86.44	BGen Lowbranch	0/1	0/2	0/3	7/4	33/5	17/6	4/7	0/8					
0302	N	20070414			1st Battalion 2d Marines	Yes	7 of 12	3.79	4.42	5.00	1	83.67	80.00	BGen Toptree	0/1	0/2	0/3	9/4	46/5	19/6	5/7	1/8					
Maj	CH	20070415	12		Commanding Officer	Yes	21 of 21	5.21	5.12	5.57	1	93.68	93.68	BGen Panzer	0/1	0/2	0/3	7/4	24/5	26/6	16/7	1/8					
9910	N	20080507	X		MCRS Pittsburgh	Yes	5 of 8	5.14	5.33	5.86	1	83.87	86.44	Insuff													
Maj	CH	20080508	14		Commanding Officer	Yes	7 of 12	3.79	4.42	5.00	1	83.67	80.00	Insuff													
9910	N	20090702			MCRS Pittsburgh	Yes	7 of 12	3.79	4.42	5.00	1	83.67	80.00	Insuff													

Source: Headquarters Marine Corps, Manpower Management Support Branch, Performance Evaluation Section (MMSB-30), Quantico, Virginia, "FY11 Roadshow Brief."

Figure 5. The Marine Corps Master Brief Sheet

2. Best Practice—The Marine Corps Total Force System and Command Profile

The MCTFS, as a fully fielded, integrated personnel and pay system, enables the Marine Corps to have considerable agility in addressing both incoming data requests and reporting requirements. Figure 6 depicts the information contained in the Marine Corps Total Force System (MCTFS) Basic Individual Record.

```

RUC:30370 COMPANY CODE:H PRES-GRADE:E3 RECSTAT:0 COMP CODE:11
PLT CODE:HTS4 TRNGRP: R-RECSTAT: RCOMP CODE:
----- CONTRACT INFORMATION-----
EAS: 20020302 COMPONENT CODE: 11USMC ENLISTED STR CAT:0
EOS: 20060123 ECC: 20020302 RESERVE COMPONENT CODE:
RESERVE ECC: 00000000 DATE ACCEPTED FIRST COMMISSION: 00000000
DATE OF ENUACCEPT: 19980303 DOD TRNGRP: TRAINING GRP:
AF ACT DU BASE DATE: 19980303 DU STATUS: 1 DU
PAY ENTRY BASE DATE: 19980303 DULIMIT/ED: 0 NONE / 19980303
DATE OF ORIG ENTRY: 19980124 START MANDATORY DRILL: 00000000
LENGTH CURR ENL: 4 YRS END MANDATORY DRILL: 00000000
LENGTH CURR EXT: 00 MONTHS DATE OF BASIC EUG: 00000000
NO EXT CURR ENL: 00 PROGRAM ENUSTED FOR: CJ LOGISTICS OPTIONS
TOTAL MONTHS EXT: 00 MONTHS ACTIVE DUTY MGIB STATUS: 5
EFF DTE CURR EXT: 00000000 MGIB-SR STATUS:
TIME LOST CURR ENL: 000 DAYS 6 YEAR OBL START: 00000000
MONTHS LAST ENL EXT: 00 DESIG MIL PILOT: 00000000
SOURCE OF ENTRY: ADDBA OFFICER CANDIDATE CODE:
SOURCE OF INT ENTRY MILSER: OFFICER CANDIDATE EFF DATE: 00000000
----- SERVICE INFORMATION-----
PRES GRADE: E3 DOR: 19981201 ACDU RUC: 30370 MCC: 068
SEL GRADE: 000 DTE: 00000000 RESERVE RUC: MOB MCC:
T/0#: 07427 LN#: 418HH 1TAD RUC: 00000 MCC: 000
WORK STATION: 418 2TAD RUC: 00000 MCC: 000
BILLET DESCRIPTION: AMMO TECH ANNIVERSARY DATE: 00000000OPEN:
0804731M RCN: 000264 FAPRUC: 00000 RESERVE MCC:
OCTB: 19981003 FORMER RUC: 54065 FUTURE RUC:
DATE JOINED PRES UNIT: 19981003 IND LOC CODE: 153 51 2010 VA PRINCE WILL
DATE JOIN SMCR: 0000000000 ACCUM DEPLOY TIME: 000
GEO LOC CODE: 221 DEPLOY RET DATE: 00000000 DEPLOY STAT:
GEO LOC DCTB: 199810 ROTATION TOUR DATE: 00000000
COMBAT SERV CODE: OVERSEAS CONTROL DATE: 00000000
LAST COMBAT TOUR: 00000000 LAST PHYS EXAM: 00000000
OFF REMOVAL DATE: 00000000 LAST PHYS CERT: 00000000
CO DATE: 00000000 RESERVE UNIT JOIN DATE: 00000000
LAST SEP/DISCH DATE: 00000000 REASON:
----- SERVICE INFORMATION-----
PMOS: 2311 AOMOS1: AOMOS5: AOMOS9:
BMOS: 2311 ADMOS2: ADMOS6: ADMOS10:
SMOS: 0000 ADMOS3: ADMOS7:
JMOS: ADMOS4: ADMOS8:

```

```

----- PERSONAL INFORMATION-----
DATE OF BIRTH: 19741111 HOME OF RECORD: 103 22 2180 LA ST TAMMANY
CITIZENSHIP: CA US COUNTRY OF ORIGIN:
ETHNIC CODE: Y NONE CIVILIAN ED LEVEL: 1212TH GRADE
RACE CODE: NBLACK CERT: LHS DIPL MAJOR: 00 NO MAJOR
SUBJECPOPULATION GROUP: BLACK BLOOD TYPE: 2 A POS SEX: M
RELIGION: 62 ROMAN CATHOLIC CHURCH
HOME PHONE: 7036305202 WORK PHONE: 0000000000
STREET ADDRESS: BURKE HALL RM 236
CITY ADDRESS: QUANTICO STATE: VA
ZIP CODE: 221340000 ADDRESS VALIDATION: R RECORD BOOK
----- PERSONAL INFORMATION----- GOOD CONDUCT MEDAL
DATE: 19980303
ARMED FORCES RESERVE MEDAL DATE: 00000000
SMCR MEDAL DATE: 00000000
DUTY PREF1:
----- RECORD INFORMATION-----
RECORD STATUS: 0 ACTIVE STATUS RESERVE RECORD STATUS:
DISPUTED DATE: 00000000 DISPUTED DATA:
LAST SCREENING: 00000000 REASON:
SCREENING RESULT:
----- DEPENDENTS INFORMATION-----
MARITAL STATUS: S SINGLE TOTAL NUMBER DEPENDENTS: 00
DEPN CERT CODE: NONE BAS/COMRATS: C COMRATS
DEPN GEO-LOC CODE: DATE DEPN LOC BEGAN: 00000000
SERVICE SPOUSE SSN: CUSTODY STATUS CODE:
SERVICE SPOUSE CODE: SPL POWER OF ATTORNEY: 00000000
SERVICE SPOUSE DATE: 00000000

```

Source: United States Marine Corps, The Basic School, Marine Corps Training Command, Camp Barrett, Virginia, Personnel Records, B3K3958, Student Handout,
<http://Jwww.trngcmd.marines.mil/Portals/207/Docs/TBSIB3K3958%20Personnel%20Records.pdf>.

Figure 6. Marine Corps Total Force System (MCTFS) Basic Individual Record

As an integrated personnel and pay system, MCTFS also contains information about an individual Marine's unit training, annual training, and other qualification information. Figure 7 depicts the MCTFS Basic Training Record.

PFT DATE: <u>200006</u>		BST/EST DATE: 200005		ANNIVERSARY DATE: 00000000	
PFT SA: 1		PERFORMED: 072			
PFT SCORE: <u>141</u>		ATTEMPTED: 100			
PFT CLASS: <u>3</u>		SCORE: 36		WEIGHT CONTROL STATUS:	
LEADERSHIP TRAINING: 1 BASIC					
WEIGHT CONTROL DATE: 00000000			LEADERSHIP TRAINING DT: 199806		
MIL APPEARANCE STATUS:			SECURITY LECTURE DATE: 200005		
MIL APPEARANCE DATE: 00000000			WATER SURVIVAL CODE: <u>4 4TH CLASS</u>		
WT CNTL QY: 00		MILAP QY: 00		WATER SURV REQUAL DATE: <u>200204</u>	
HIV-III TESTED: 199803		GAS MASK SIZE: C MEDIUM			
HIV-III LECTURE DATE: 000000		GAS MASK TYPE: N XM40			
DRIVER IMPROVEMENT: <u>1 PASSED</u>		GAS CHAMBER DATE: 199803			
DRUG LECTURE DATE: 200005		HELMET SIZE: C MEDIUM			
CURRENT RIFLE QUAL DATE: <u>200005</u>		CURRENT PISTOL QUAL DATE: <u>200009</u>			
CURRENT RIFLE SCORE CD: <u>S25</u>		CURRENT PISTOL SCORE CD: <u>298</u>			
CURRENT RIFLE CLASS CD: <u>M</u>		CURRENT PISTOL CLASS CD: <u>M</u>			
-----**UNIT TRAINING**-----					
DISTINGUISHED DATE: 000000		DISTINGUISHED DATE: 000000			
PET DATE: 000000		PET DATE: 000000			
EXCEPTION:		EXCEPTION:			
EXCEPTION DATE: 000000		EXCEPTION DATE: 000000		EXPERT RIFLE	
QUALIFICATIONS: 00		EXPERT PISTOL QUALIFICATIONS: 00			
RIFLE FIELD FIRING					
DATE: 000000					
-----**SERVICE TRAINING**-----					
SECURITY INVESTIGATION:					
TYPE- 1 ENTRANCE NATIONAL AGENCY COMP DATE- 19980206					
SEC CLEARANCE ACCESS LEVEL- Q NO CLEAR REQUIRED FAVORA ADJU DATE- 19980206					
SECURITY AGENCY CODE: 9 DEFENSE INVESTIGATIVE SERVICE					
SECURITY REQUEST CODE:					
SECURITY ELIGIBILITY CODE: S SECRET					
PLACE OF BIRTH: STATE- 22 LA COUNTY- 103 LA ST TAMMANY					
INTELLIGENCE TRAINING HOURS: 00 LEVEL 1 ANTITERRORISM TRAINING: 00000000					

Source: United States Marine Corps, The Basic School, Marine Corps Training Command, Camp Barrett, Virginia, Personnel Records, B3K3958, Student Handout, <http://www.trngcmd.marines.mil/Portals/207/Docs/TBS/B3K3958%20Personnel%20Records.pdf>.

Figure 7. Marine Corps Total Force System (MCTFS) Basic Training Record

Figure 8 depicts the MCTFS Basic Record of Service. This record summarizes “conduct and duty proficiency markings and the averages of those markings for the time in grade, enlistment, and service.”²⁵

²⁵ Marine Corps Order (MCO) P1070.12K W/CH 1, *Marine Corps Individual Records Administration Manual*, 14 July 2000, 4-31, <http://www.quantico.marines.mil/Portals/147/IRAM.pdf>.

****** MCTFS RECORD OF SERVICE ******
PAGE: 01 RUC: 30370

COMPANY CODE: H PRES-GRADE: E3 RECSTAT: 0 COMP CODE: 11
PLT CODE: HTS4 TRNGRP: R-RECSTAT: RCOMP CODE: DOR:
19981201

AFADBD: 19980303 MCC: 068 PEBD: 19980303
****PROFICIENCY/CONDUCT****

OCC	PRO	CON	EFF DATE	OCC	PRO	CON	EFF DATE
SA	4.6	4.1	20000731				
SA	4.6	4.6	20000131				
SA	4.6	4.5	19990731				
SA	4.4	4.5	19990131				
TR	4.6	4.7	19980826				
SA	N/A	N/A	19980731				
TR	4.3	4.3	19980612				

PRO CON

AVERAGE MARKS IN GRADE: 4.6 4.4
AVERAGE MARKS IN SERVICE: 4.5 4.5
AVERAGE MARKS IN ENLISTMENT: 4.5 4.5
SPECIAL DUTY BONUS POINTS: 0 SPECIAL DUTY BONUS DATE:
00000000
COMMAND RECR BONUS POINTS: 0

****COMPOSITE SCORE****

COMP DATE	SCORE	COMP DATE	SCORE
20001127	1474	19991123	1410
20000828	1453	19990830	1349
20000528	1452	19990527	1318
20000225	1431		

Source: United States Marine Corps, The Basic School, Marine Corps Training Command, Camp Barrett, Virginia, Personnel Records, B3K3958, Student Handout,
<http://www.trngcmd.marines.mil/Portals/207/Docs/TBS/B3K3958%20Personnel%20Records.pdf>.

Figure 8. Marine Corps Total Force System (MCTFS) Basic Record of Service

The Manpower Information Technology (MIT) branch within the Manpower Information (MI) Division for Headquarters Marine Corps Manpower and Reserve Affairs has developed over 60 applications that draw on data from MCTFS, as well as other systems, such as the Marine Corps' Total Force Structure Management System. These applications empower (1) individual Marines to view, verify, and manage their personnel data; (2) commanders to view administrative data about their commands; and (3) Marine Corps leadership to assess and report on health of the force, among many other human resources functions.

An example of one of the applications developed by the MIT branch is Command Profile (CP). As described in Figure 9, from the Manpower & Reserve Affairs Newsletter, the goal of CP is to "allow commanders and leaders" (E7s, Warrant Officers, O3s and


above) the ability quickly “to obtain administrative answers about their unit(s)” via a Common Access Card (CAC)-enabled portal.²⁶ Data queries can be conducted across the Marine Corps, or, with adjusted filter settings, users can select “Marine Type” or identify a specific unit or command (e.g., MARFORCOM USCENTCOM.) The categories of information available via CP include staffing, demographics, deployment, training, administration, family readiness, and irregular warfare. CP is a dynamic application; new categories and types of data are added, as needed, in response to changing requirements. Such additions occur in response to initiatives from the Marine Corps Commandant, Office of the Secretary of Defense mandates, and even user input.²⁷

GOALS OF COMMAND PROFILE

1. The overall goal for Command Profile is to allow commanders and leaders the ability to obtain administrative answers about their unit(s). *We try to do this in three clicks or less.* When the service record book left the company level and migrated to the Personnel Administrative Center, the commander lost administrative visibility on their Marines. Command and Marine Profile are efforts to return administrative information back to the commander and others who require it in the performance of their duties.

2. 3 Clicks or less. This is a lofty goal, but this is the standard we attempt to achieve. Commanders and others want answers but do not want to invest in extra time to load reports, run them and extract answers. Command Profile is a dashboard that returns answers in an expedited manner.

3. Another goal was to standardize answers obtained by users regardless of where they are within the command hierarchy. While there are other methods to obtain administrative data, there is a level of experience required to build reports that answer specific questions from the commander. When reports are unknowingly built incorrectly the user is not aware that the data returned is inaccurate. Command Profile uses standardized logic which ensures the same logic is applied at every level of the hierarchy all the time.



Command Profile answers questions to the commander about their unit[s].

Source: *Manpower & Reserve Affairs Newsletter* 1-14, 19 May 2014.

Figure 9. Goals of Command Profile

Some examples of the types of queries that can be executed in “3 clicks or less” include personnel availability/duty limitations, deployable/nondeployable, primary and secondary occupational specialties, Post Deployment Health Reassessment compliance,

²⁶ Manpower & Reserve Affairs Newsletter 1-14, May 2014

²⁷ Manpower and Reserve Affairs, “Manpower Information, Manpower Command Profile,” Version 1.0, 29 September 2014.

training qualifications, foreign languages and dialects, Regional Culture and Language Familiarization program assignment, annual training compliance, education (military and civilian, including academic discipline), and assignment history.²⁸ Through its “Find a Marine” function, CP links to another application developed by the MIT branch, Marine Profile. This application enables CP users to review an individual Marine’s career history, deployment history, education and training, qualifications, etc. As one of the stated goals, “Command and Marine Profile are efforts to return administrative information back to the commander and others who require it in the performance of their duties.”²⁹

E. Personnel Management Developments and Adaptations Relevant to the Regional Expertise, and Culture Competencies

Service personnel records contain data about military personnel that are relevant to the management of those individuals, informing duty assignments and other human resource decisions and actions. Effective talent management relies on authoritative data regarding the experiences, skills, abilities, education, and inclinations of Service personnel.

Several Services have implemented some recent noteworthy personnel management developments and adaptations relevant to the REC competencies. For example, the Navy created five Additional Qualification Designators to “identify and manage” individuals with experience, education, and expertise relevant to the U.S. Pacific Command area of concern.³⁰ The Air Force similarly uses a “Special Experience Identifier” (SEI) in conjunction with their Language-Enabled Airmen Program (LEAP). The SEI enables “career functional managers and assignments officers to identify the language capabilities that make” LEAP participants “especially suitable for Language coded positions” within their career field.³¹ Another example of an adaptation, as described in the previous section, is the Marine Corps’ Command Profile application, which provides Marine Corps commanders the ability to view the Regional, Culture, and Language Familiarization (RCLF) of members of their units.³²

²⁸ *Manpower & Reserve Affairs Newsletter* 1-14, May 2014.

²⁹ *Ibid.*

³⁰ Chief of Naval Personnel Public Affairs, “Navy Creates Designation to Identify Officers with Pacific Region Expertise,” Story Number: NNS150205-07, 5 February 2015, http://www.navy.mil/submit/display.asp?story_id=85473; Kenneth Stewart, “NPS Certificate Program Preps Officers for Assignment in the Pacific Rim,” Naval Postgraduate School Update, March 2014, <http://www.nps.edu/Images/Docs/March14%20Update.pdf>.

³¹ Air Force Culture and Language Center, “LEAP FAQs,” <http://culture.af.mil/leap/faq.aspx>.

³² MARADMINS Active Number: 619/12, “Implementation of the Regional, Culture, and Language Familiarization (RCLF) Program,” 24 October 2012, <http://www.marines.mil/News/Messages/MessagesDisplay/tabid/13286/Article/129296/implementation-of-the-regional-culture-and-language-familiarizationprogram.aspx>.

There are also examples of relevant REC initiatives for which there have been no adaptation of the personnel management systems. For example, the Army's personnel systems do not currently track soldier participation in and expertise gained from Regionally Aligned Force assignments.³³ Likewise, the Marine Corps does not manage Marines based on their assigned RCLF region. The personnel systems and applications identify which Marine has what RCLF region, but that assignment of region has no human resource management implications.

F. Conclusion

This chapter examined both the wide range of military personnel information management systems across DoD and the challenges associated with personnel data. This chapter also identified emerging systems, strategies, and adaptations to address the endemic personnel management challenges.

³³ Capt. Cory R. Scharbo, "The First Regionally Aligned Force: Lessons Learned and the Way Ahead," *Military Review*, July-August 2015; Joseph F. Adams et al., "Enhancing and Managing Regionally Oriented Individuals and Organizations," IDA Paper P-5161 (Alexandria, VA: Institute for Defense Analyses, June 2014), 15.

4. Recommendations for a Regional Expertise and Culture Readiness Index

Currently, DoD has no enterprise-wide REC index. Using the current DMDC data elements that have been identified as suitable for competency mapping, IDA proposes to develop a REC Readiness Index (REC-RI) proof-of-concept application that profiles competency domain proficiency levels for military Service personnel. Given concerns regarding the quality of certain data elements at the enterprise-level, as identified in Phase 1, IDA will also provide recommendations regarding how the fidelity of proficiency-level determination could be improved with the inclusion of additional Service data elements.

The REC-RI application will be developed in Phase 3. This will be a readiness assessment tool that will enable DoD leadership to quickly assess Total Force Regional Expertise and Culture Readiness. This tool will need to draw on authoritative, enterprise-wide data, which will ensure that it will be useful as both a force management and personnel management tool. Figure 10 depicts a screenshot of the notional REC-RI dashboard. Fidelity of this notional index tool could be improved with additional data not currently extracted by the Services. In the Phase 3 deliverable, IDA will make recommendations regarding those additional data extractions.



Source: Institute for Defense Analyses, "Regional Expertise and Culture (REC) Readiness Index," 2015.

Figure 10. Notional REC-RI Application Dashboard

A. Person-Event Data Environment

The U.S. Army Person-Event Data Environment (PDE) “is a cloud-based virtual data repository for housing” digitized, de-identified information about DoD personnel.³⁴ Established in 2006, the PDE was conceived of as a “business intelligence platform with an initial goal emphasizing command workforce, critical skill resource assessment, and outcome studies” (p. 2) Although it began as an Army platform, PDE became a “collaborative ‘commons’” when other government entities and organizations, such as the DMDC, began both contributing data feeds to PDE and also harnessing PDE’s “computational resources” (p. 2).

Access to PDE is CAC-enabled and managed by the Army Analytics Group, Research Facilitation Laboratory. “PDE Analysis accounts” are created only “after successful completion of all the mandatory forms and required trainings tracked in the PDE Portal.”³⁵

PDE’s data catalog currently contains over 350 assets, with at least 95 additional data feeds (among them, Army Training Requirements and Resources System, ATTRS) in the process of being added. Examples of some of the current data assets of widest use include DMDC’s Active Duty Military Personnel Master and Reserve Components Common Personnel Data System Master, DMDC’s Casualty Tracking System, Defense Enrollment and Eligibility Reporting System (DEERS), Digital Training Management System (DTMS), and the Drug and Alcohol Management Information System (DAMIS).³⁶ The use of each data asset is governed by data-use and sharing agreements.

PDE provides “a self-service and collaborative” analytical environment for “studies and research requiring de-identified and encoded data and for hosting applications that require identifiable personnel data.”³⁷ Data in the PDE environment is de-identified, with PDE identifiers assigned to each individual. PDE also hosts applications, such as the Commander’s Risk Reduction Dashboard (CRRD), that operationalize or “re-identify information for display to authorized personnel” (p. 5).

The CRRD was launched as a pilot program in Fiscal Year 2013. Figure 11 depicts a screenshot of the CRRD, demonstrating the appearance of an existing PDE application.

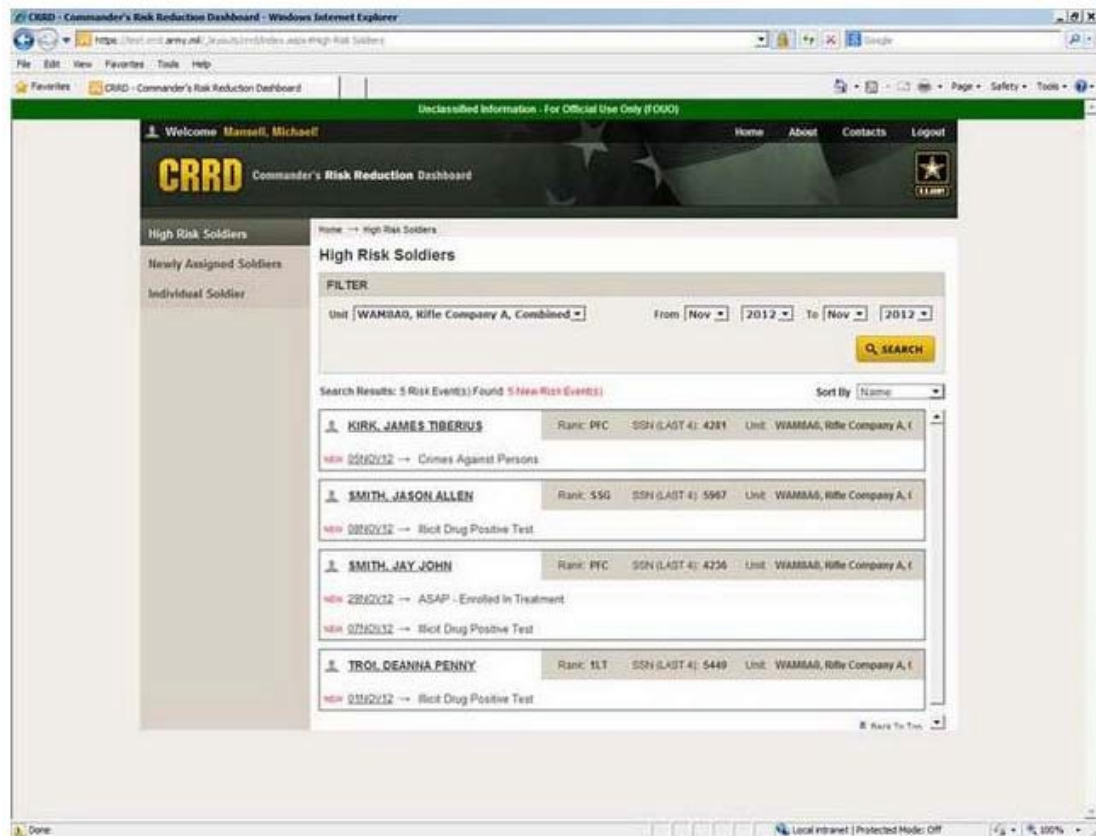
³⁴ Loryana L. Vie et al., “The U.S. Army Person-Event Data Environment: A Military-Civilian Big Data Enterprise,” *Big Data* 3, no. 00 (2015), 2

³⁵ Major Paul Lester, “Person-Event Data Environment (PDE): Functional Overview, RAND Presentation,” September 2014, 10.

³⁶ Major Paul B. Lester, “Data Integration,” presentation to the IOM Committee on Department of Homeland Security Workforce Resilience, February 4–5, Washington, DC, 4 February 2013, <http://iom.nationalacademies.org/~media/Files/Activity%20Files/HealthServices/DHSWorkforceResilience/2013-FEB-04/Presentation/Lester%20Paul%20%20IOM%20NAS%20Briefing.pdf>.

³⁷ “Privacy Impact Assessment (PIA) for the Person-Event Data Environment (PDE), Deputy Under Secretary of the Army (DUSA),” DD FORM 2930, 2013, <http://ciog6.army.mil/Portals/1/PIA/2013/PDE.pdf>, 4.

The CRRD application collects “individual Soldier data associated with...risk factors,” such as suicide attempts, alcohol or drug offenses, incidents of domestic or child abuse, financial problems, letters of reprimand, courts martial, eviction notices, disciplinary actions, being Absent Without Leave (AWOL), etc.³⁸ Through analytical computations of those data, the CRRD generates risk projections.



Source: Meghann Myers, “Online Program May Help ID Self-harm Patterns,” *Army Times*, 28 December 2012, <http://archive.armytimes.com/article/20121228/NEWS/212280314/Online-program-may-help-ID-self-harm-patterns>.

Figure 11. Commander's Risk Reduction Dashboard Screenshot

According to the director of the Army Substance Abuse Program, the Army developed this information dashboard concept for commanders as a means to “consolidate all of their soldiers’ disciplinary records in one easy-to-use platform.”³⁹ Users of the CRRD application can perform searches by name, examine “high-risk soldiers” in their unit, and

³⁸ Ibid., 4–5.

³⁹ Meghann Myers, “Online Program May Help ID Self-harm Patterns,” *Army Times*, 28 December 2012, <http://archive.armytimes.com/article/20121228/NEWS/212280314/Online-program-may-help-ID-self-harm-patterns>.

identify high-risk soldiers who recently transferred to the unit.⁴⁰ A 2012 *Army Times* article quoted an Army Communications-Electronics Command (CECOM) spokesperson giving the purpose of the CRRD application: to “help commanders better detect, measure and track unit-level risk behaviors to engage soldiers who may be at high risk in prevention and intervention activities.”⁴¹

According to a recent interview with the Product Director for Army Human Resource Systems, the CRRD “recently received a favorable Materiel Development Decision” and will move to the next phase of development.⁴²

B. Notional REC-RI Application Dashboard

As with CRRD, IDA proposes to use PDE as the vehicle for hosting the REC-RI proof-of-concept application, drawing on the data feeds available therein. Figure 12 depicts a screenshot of the notional REC-RI application, showing the inventory of personnel and the filter function.

Current Filter Setting: All Active and Reserve Component, All Services, Command: USCENTCOM, Regional

Home Inventory Core Culture Regional Leader/Influence

Component Command Competency Find Personnel

Service/Agency USAFRICOM ☐ Core Culture

Find a Unit USCENCOM ☒ Regional Ascending

USEUCOM ☐ Leader/Influence Descending

Name	Service	Component	UIC	Grade	Occupation	Gender	Core Culture	Regional	Leader/Influence
Hall, Ed	USA	Active	YZ12YZ	E-9	18Z	M	Proficient	Master	Master
Martini, John	USA	Active	NM12NM	O-6	48E	M	Master	Master	Basic
Doe, John	USAF	Active	EF56EF	O-5	14F	M	Proficient	Master	Basic
Doe, Jane	USMC	Reserve	CD34CD	E-7	0331	F	N/A	Basic	N/A
Smith, John	USA	Active	AB12AB	E-6	14A	M	Basic	N/A	N/A
Putin, Vlad	USN	Active	GH12GH	E-4	Intel Specialist	M	N/A	N/A	N/A

NOTIONAL

Source: Institute for Defense Analyses, “Regional Expertise and Culture (REC) Readiness Index,” 2015.

Figure 12. Notional REC-RI Inventory

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Susan L. Follett, “Faces of the Force: Lee James,” *Acquisition, Logistics, and Technology (AL&T) News*, 11 August 2015, <http://asc.army.mil/web/access-fotf-lee-james/>; Chrystal Chadwick, “Commander’s Risk Reduction Dashboard: Proof of Concept Rolled out to Pilot Group,” *CECOM Dots and Dashes*, April 2014, 9.

Figure 13 depicts a screenshot of the notional REC-RI application, Core Culture tab, showing a close-up of the primary fields and some data elements that could be relevant.

Current Filter Setting: Active Component, Army

Home Inventory **Core Culture** Regional Leader/Influence

Core Culture Relevant Demographic Data		Numbers of Individuals
Birthplace outside of the United States		1,000
Original citizenship non-U.S.		15,000
Home of record outside of the U.S.		45,000

Core Culture Relevant Training Events		Taken
Spouse Birthplace		
States	3C Trainer	50
	Village Stability Operations Academic Week	20

Core Culture Relevant Assignments		Numbers of Individuals
	Security Force Assistance	15,000
	Ministerial Advisor	14,200

Source: Institute for Defense Analyses, "Regional Expertise and Culture (REC) Readiness Index," 2015.

Figure 13. Notional REC-RI Core Culture Tab

Figure 14 depicts a screenshot of the notional REC-RI application, Regional Expertise tab, showing a close-up of the primary fields and some of the data elements that could be relevant.

Current Filter Setting: Active Component, Army

Home Inventory Core Culture **Regional** Leader/Influence

Regional Relevant Demographic Data		Numbers of Individuals
	Overseas Cost of Living Allowance	525,000
	International Relations BA	150

Regional Relevant Training Events		Taken
Comma		
Area Stu	AFR-J3OP-US850 VCAT* Horn of Africa (HOA)	75
	AFR-J3OP-US850 VCAT* Northern Africa	

Regional Relevant Assignments		Numbers of Individuals
	Foreign Area Officer, Attaché	1,000
	USAFRICOM J5	5,000
	1st Battalion, 10th SFG	500

Source: Institute for Defense Analyses, "Regional Expertise and Culture (REC) Readiness Index," 2015.

Figure 14. Notional REC-RI Regional Tab

Figure 15 depicts a screenshot of the notional REC-RI application, Leader/Influence tab, showing a close-up of the primary fields and some of the data elements that could be relevant.

Current Filter Setting: Active Component, Army

Home Inventory Core Culture Regional **Leader/Influence**

Leader/Influence Relevant Demographic Data	Numbers of Individuals
Command Status	200,000
National War College	15
CAPSTONE	

Leader/Influence Relevant Training Events	Taken
Village Stability Operations Academic Week	575
Basic Annual Leadership Training	50

Leader/Influence Relevant Assignments	Numbers of Individuals
Operations Chief	50,000
Battalion Commander	5,000

Source: Institute for Defense Analyses, "Regional Expertise and Culture (REC) Readiness Index," 2015.

Figure 15. Notional REC-RI Leader/Influence Tab

Figure 16 depicts a screenshot of the notional REC-RI application, Leader/Influence tab, expanded, for visualization purposes.

Current Filter Setting: Active Component, Army

Home Inventory Core Culture Regional **Leader/Influence**

Leader/Influence Relevant Demographic Data	Numbers of Individuals
Command Status	200,000
Service War College	30,000
National War College	15,000
CAPSTONE	50
PINACLE	35

Leader/Influence Relevant Training Events	Taken
Village Stability Operations Academic Week	575
Basic Annual Leadership Training	50
Commanders Course	350

Leader/Influence Relevant Assignments	Numbers of Individuals
Operations Chief	50,000
Battalion Commander	5,000

Source: Institute for Defense Analyses, "Regional Expertise and Culture (REC) Readiness Index," 2015.

Figure 16. Notional REC-RI Leader/Influence Tab

C. Data Elements Relevant to the Regional Expertise, and Culture Competencies

Using the Army's SRB as an example, the following additional data fields (not currently featured in the DMDC Active Duty Military Personnel Master and Active Duty Pay files, or featured but incomplete) that may have some relevance for the REC competencies might be considered for extraction:

- Section I, "Overseas Assignment Information"
- Section IV, "Service Data," Source of Appointment, Previous Branch/MOS
- Section V, "Personal/Family Data," Birthplace, Country of Citizenship, Spouse Birthplace/Citizenship
- Section VI, "Foreign Language," the actual foreign language
- Section VII, "Military Education," Course Names
- Section VIII, "Civilian Education," Academic Disciplines, Certifications
- Section IX(a), "Awards and Decorations," "State Awards"
- Section X, "Assignment Information," Dates, Organization, Station, Location, Duty Title

The addition of these data elements, widely available in Service personnel records, would greatly enhance the visibility that leadership across DoD has over Total Force REC readiness.

D. Conclusion

As an enterprise-wide tool, the REC-RI application will be a readiness assessment tool that will enable DoD leadership to quickly assess Total Force readiness for a complex and unpredictable global security environment. Hosted on PDE, the REC-RI application will consolidate many feeds of Total Force data into one easy-to-use platform. Users of the REC-RI application will be able to perform searches by name, examine the inventory of specific units/Services/organizations at whatever echelon, and quickly ascertain enterprise-wide, what competencies exist, and the depth and breadth of those competencies. The REC-RI application will ultimately permit DoD to "monitor trends in the recruitment, accession, hiring, promotion, pay, training, and retention of individuals with these critical skills; explore and develop innovative concepts to expand and track capabilities," as called for in the DoD Instruction 5160.70.⁴³

⁴³ DoD Instruction (DoDI) 5160.70, "Management of DoD Language and Regional Proficiency Capabilities," 12 June 2007, 5.

Acronyms

AF-IPPS	Air Force Integrated Personnel and Pay System
ATTRS	Army Training Requirements and Resources System
CAC	Common Access Card
CDB	Career Data Brief
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CCJO	Capstone Concept for Joint Operations
CP	Command Profile
CECOM	Army Communications-Electronics Command
CRRD	Commander's Risk Reduction Dashboard
DAPMIS	Department of the Army Photo Management Information System
DAMIS	Drug and Alcohol Management Information System
DEERS	Defense Enrollment and Eligibility Reporting System
DIMHRS	Defense Integrated Military Human Resources System
DMDC	Defense Manpower Data Center
DoD	Department of Defense
DoDI	DoD Instruction
DoDM	DoD Manual
DTMS	Digital Training Management System
ERB	Enlisted Record Brief
GAO	Government Accountability Office
HRIT	Human Resource Information Technology
IDA	Institute for Defense Analyses
IPPS-A	Integrated Personnel and Pay System-Army
IPPS-N	Integrated Personnel and Pay System-Navy
LEAP	Language-Enabled Airmen Program
LREC	Language, Regional Expertise, and Culture
MARFORCOM	Marine Forces Command
MBS	Master Brief Sheet
MCTFS	Marine Corps Total Force System
MEL	Military education levels
MMSB	Manpower Management Support Branch
MIT	Manpower Information Technology
ODC	Officer Data Card
OMPF	Official Military Personnel File
ORB	Officer Record Brief
PDE	Person-Event Data Environment
RCCPDS	Reserve Components Common Personnel Data System
RCLF	Regional, Culture, and Language Familiarization
REC	Regional Expertise and Culture
REC-RI	REC Readiness Index

SEI	Special Experience Identifier
SRB	Soldier Record Brief
USCENTCOM	United States Central Command
USD(P&R)	Under Secretary of Defense for Personnel and Readiness
vMPF	Virtual Military Personnel Flight

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14. ABSTRACT This interim report summarizes the results of an independent assessment of Department of Defense (DoD) personnel systems and databases, focused on the identification and differentiation of what personnel data exist, where, and at what organizational level, as well as what is done with those data. This research focused on what personnel data are reported, via what mechanisms, both at the military Service-level and enterprise-wide, across DoD. Three specific personnel competencies framed and bounded this research effort: we focused on the extent to which existing personnel data reflect training, education, biographic/demographic, or professional experiences relevant to those competencies.					
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